

WHAT IS CLAIMED IS:

1. An intravascular guidewire inflation system, comprising:

a hollow metallic body having distal and proximal portions, said body having a central lumen formed therein with distal and proximal ports in fluid communication with said lumen;

an expandable member mounted on said distal portion of said body and adapted to be in fluid communication with said distal port of said central lumen, such that fluid introduced through said proximal port will cause actuation of said expandable member;

a valve movably inserted with respect to said proximal port of said body, said valve movable between a first position to seal said central lumen to prevent deactuation of said expandable member and a second position to unseal said central lumen to allow actuation or deactuation of said expandable member; and

a valve adaptor which may be removably mounted on said proximal portion of said body, said adaptor having an auxiliary lumen adapted to be in fluid communication with said proximal port of said central lumen and further adapted to receive a fluid delivery device for selectively actuating or deactuating said expandable member.

2. The guidewire inflation system of Claim 1, wherein said metallic body comprises nitinol.

3. The guidewire inflation system of Claim 1, wherein said expandable member comprises a balloon formed from an elastomeric material selected from the group consisting of C-FLEX, silicones, latex and polyurethanes.

4. The guidewire inflation system of Claim 1, wherein said metallic body has an outer diameter of from about 0.010 inches to about 0.032 inches.

5. The guidewire inflation system of Claim 4, wherein said metallic body has an outer diameter of from about 0.014 inches to about 0.018 inches.

6. A guidewire inflation system, comprising:

a hollow metallic body having distal and proximal portions, said body having a central lumen formed therein with distal and proximal ports in fluid communication with said central lumen;

an inflatable member mounted on said distal portion of said body in fluid communication with said distal port of said central lumen, such that fluid introduced through said proximal port will cause inflation of said inflatable member;

5 a valve movably inserted with respect to said proximal port of said body, said valve movable between a first position to seal said central lumen to prevent deflation of said inflatable member and a second position to unseal said central lumen to allow inflation or deflation of said inflatable member; and

10 a valve adaptor which may be removably mounted on said proximal portion of said body, said adaptor having an auxiliary lumen adapted to be in fluid communication with said proximal port of said central lumen and further adapted to receive a fluid delivery device for selectively inflating or deflating said inflatable device.

15 7. The guidewire inflation system of Claim 6, wherein said metallic body comprises nitinol.

8. The guidewire inflation system of Claim 6, wherein said inflatable member comprises a balloon formed from an elastomeric material selected from the group consisting of C-FLEX, silicones, latex and polyurethanes.

20 9. The guidewire inflation system of Claim 6, wherein said metallic body has an outer diameter of from about 0.010 inches to about 0.032 inches.

10. The guidewire inflation system of Claim 6, wherein said metallic body has an outer diameter of from about 0.014 inches to about 0.018 inches.

11. The guidewire inflation system of Claim 6, wherein said distal portion of said hollow metallic body comprises a coil at the distal tip of said body.

25 12. The guidewire inflation system of Claim 11, wherein said central lumen has a core wire inserted therein at a distal opening, and said core wire extends distally from said distal opening within said coil.

13. The guidewire inflation system of Claim 6, wherein said valve comprises a metallic rod slidably inserted into said central lumen.

30 14. The guidewire inflation system of Claim 13, wherein the diameter of a first portion of said metallic rod is less than the internal diameter of said central lumen

and the diameter of a second portion of said metallic rod is greater than the diameter of said central lumen.

15. The guidewire inflation system of Claim 14, wherein the diameter of said second portion of said metallic rod is about 0.014 inches or less.

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